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Proposed Rulemaking Concerning Review and Establishment of Natural Gas Curtailment Priorities for Interstate Pipelines

DEPARTMENT OF ENERGY

Economic Regulatory Administration

10 CFR Part 580

[Docket No. ERA-R-79-10-A]

Proposed Rulemaking Concerning Review and Establishment of Natural Gas Curtailment Priorities for Interstate Pipelines

AGENCY: Department of Energy, (Economic Regulatory Administration).

ACTION: Notice of proposed rulemaking.

SUMMARY: Economic Regulatory Administration (ERA) of the Department of Energy is issuing for public comment a proposed rule pursuant to its responsibility to establish and review natural gas curtailment priorities under Sections 301(b) and 402(a)(1)(E) of the Department of Energy Organization Act (Pub. L. 95-91) (DOE Act) and Title IV of the Natural Gas Policy Act of 1978 (Pub. L. 95-621) (NGPA). The relationships betwen curtailment priorities, the emergency authorities provided to the President under the NGPA and ERA's natural gas import authorities under the Natural Gas Act (NGA) and the DOE Act are also considered. In accordance with Section 402(a)(1)(E) of the DOE Act and Section 403(b) of the NGPA, this proposed rule, when final, will be implemented and enforced by the Federal Energy Regulatory Commission (FERC).

DATES: All written comments should be submitted by 4:30 p.m., August 29, 1980, to the address indicated in the "Addresses" section of this Notice and should be identified on the outside envelope and document submitted with the docket number (ERA-R-79-10-A) and the designation "Comments on Curtailment Priorities for Interstate Pipelines."

All requests to speak should be sent to the designated address for each location at which you desire to speak and should be identified on the outside envelope with the docket number (ERA-R-79-10-A) and the designation "Requests to Speak on Curtailment Priorities for Interstate Pipelines." Requests must be sent to the address shown in the "Addresses" section and must be received by the dates listed below.

Requests to speak at the Washington hearing are due by August 6, 1980 at 4:30 p.m. Hearings to be held on August 12, 1980 at 9:30 a.m. in Washington, D.C., and continued, if necessary, at 9:30 a.m. on the next day.

Requests to speak at the Atlanta hearing are due by July 18, 1980 at 4:30 p.m. Hearing to be held on July 24, 1980 at 9:30 a.m. in Atlanta, Georgia and continued, if necessary, at 9:30 a.m. on the next day.

Requests to speak at the Houston hearing are due by July 23, 1980 at 4:30 p.m. Hearing to be held on July 29, 1980 at 9:30 a.m. in Houston, Texas and continued, if necessary, at 9:30 a.m. on the next day.

Requests to speak at the Chicago hearing are due by July 16, 1980 at 4:30 p.m. Hearing to be held on July 22, 1980 at 9:30 a.m. in Chicago, Illinois and continued, if necessary, at 9:30 a.m. on the next day.

Requests to speak at the San Francisco hearing are due by July 25, 1980 at 4:30 p.m. Hearing to be held on July 31, 1980 at 9:30 a.m. in San Francisco, California and continued, if necessary, at 9:30 a.m. on the next day.

ADDRESSES: All written comments should be sent to the Office of Public Hearings Management, Economic Regulatory Administration, Room 2313, Docket No. ERA-R-79-10-A, 2000 M Street, NW., Washington, D.C. 20461.

All requests to speak at the public hearings should be sent to the addresses listed below for the hearing location at which you desire to speak:

For Public Hearing in Washington, D.C.: Economic Regulatory Administration, Office of Public Hearings Management, Room 2313 (Docket No. ERA-R-79-10-A), 2000 M Street, NW., Washington, D.C. 20461, Attn: Robert C. Gillette.

For Public Hearing in Atlanta, Georgia: Betty Camp, Department of Energy, Region IV, 1655 Peachtree St., NW., Atlanta, Georgia 30309, (404) 881-2696.

For Public Hearing in Houston, Texas: Max Lacefield, Department of Energy, Region VI, 2626 Mockingbird Lane, Dallas, Texas 75235, (214) 729-7745.

For Public Hearing in Chicago, Illinois: Lou Brownlee, Department of Energy, Region V, 175 W. Jackson Blvd., Chicago, Illinois 60604, (312) 353-8457.

For Public Hearing in San Francisco, California: Economic Regulatory Administration, Office of Public Hearings Management, Room 2313 (Docket No. ERA-R-79-10), 2000 M Street, NW., Washington, D.C. 20461, Attn: Robert C. Gillette.

Location of Public Hearing in Washington, D.C. is: Department of Energy, Room 2105, 2000 M Street, NW., Washington, D.C. 20461.

Location of Public Hearing in Atlanta, Georgia is: Hyatt Riviera, 1630 Peachtree Street, NE., Atlanta, Georgia 30367.

Location of Public Hearing in Huston, Texas is: Allen Park Inn, State Room, 2121 Allen Parkway, Houston, Texas 77019.

Location of Public Hearing in Chicago, Illinois is: Pick Congress Hotel, Florentine Room, South Michigan Ave. & Congress, Chicago, Illinois 60605.

Location of Public Hearing in San Francisco, California is: Hyatt on Union Square, Dolores Room, Post & Stockton Streets, 2nd Lower Level, San Francisco, California 94108.

FOR FURTHER INFORMATION CONTACT:

Robert C. Gillette (Office of Public Hearing Management), Economic Regulatory Administration, 2000 M Street, NW., Washington, D.C. 20461, (202) 653-3757.

William L. Webb (Office of Public Information), Economic Regulatory Administration, 2000 M Street, NW., Room B-110, Washington, D.C. 20461, (202) 653-4055.

Albert F. Bass (Division of Natural Gas), Economic Regulatory Administration, 2000 M Street, NW., Room 7108, Washington, D.C. 20461, (202) 653-3286.

James K. White (Office of General Counsel), Department of Energy, 1000 Independence Avenue, SW., Room 5E-074, Washington, D.C. 20585, (202) 252-2900.

SUPPLEMENTARY INFORMATION:

I. Background.
II. Need and Direction for Change.
III. Discussion of the Proposed Rule.
IV. Summary of Comments.
V. Summary of Regulatory Analysis.
VI. Summary of Draft Environmental Impact Statement.
VII. Comment and Hearing Procedures.

Section I.—Background

Prior to the enactment of the Department of Energy Organization Act, Pub. L. 95-91, 42 U.S.C. 7101, *et seq.* (DOE Act) in 1977, establishing the Department of Energy (DOE), the Federal Power Commission (FPC) exercised exclusive jurisdiction over natural gas curtailments under the Natural Gas Act, Pub. L. 75-688, as amended 15 U.S.C. 717 *et seq.* (NGA). Natural gas curtailment priorities applicable to interstate pipelines were considered on a case-by-case basis under the guidelines set out in FPC Order No. 467-B (38 FR 6386, March 9, 1973) and several companion orders issued in 1973 and 1974. Order No. 467-B, codified in 18 CFR 2.78 sets out nine priority-of-service end-use categories for determining the order of curtailment of natural gas deliveries by interstate pipelines, generally ranking residential and small commercial uses in the highest priorities (that is, last to be

curtailed) and interruptible large volume boiler-fuel industrial uses in the lowest, first-curtailed priorities.

The Order No. 467–B priority of service categories apply only to the volumes of gas delivered to the customers of interstate pipelines. These customers are generally local distribution companies that resell the gas to their end-use customers, but they may also include direct industrial customers, as well as other interstate pipelines that in turn sell to distribution companies for resale. The deliveries and curtailments of gas by the distribution companies to their end-use customers are subject to the jurisdiction of state regulatory agencies. The Commission assumed only limited jurisdiction over curtailment priorities and stated in its Order No. 467 that ". . . certain sales to ultimate consumers are beyond our jurisdiction. In those instances, we solicit the cooperation of State authorities to aid implementation of this program."

Under the DOE Act, the Federal Government's jurisdiction over natural gas curtailments under the NGA is divided between the Secretary of Energy and the Federal Energy Regulatory Commission (FERC). Sections 301(b) and 402(a)(1)(E) assign the Secretary of Energy full responsibility concerning "the establishment and review of priorities for such curtailments." The Secretary delegated this authority to the Administrator of the Economic Regulatory Administration (ERA) (DOE Delegation Order No. 0204–4, October 1, 1977, 42 FR 60726, November 26, 1977). The FERC has responsibility for "the establishment, review and enforcement of curtailments." In addition, any DOE rule on curtailment priorities is subject to the FERC's review and concurrence under Section 404 of the DOE Act.

We interpret the responsibility given DOE in the DOE Act for "the establishment and review of priorities" as a mandate to review the entire Federal natural gas curtailment priority system and related issues. Title IV of the Natural Gas Policy Act, Pub. L. 95–621, 15 U.S.C. 3301 *et seq.* (NPGA) vested in the Secretary an additional mandate to issue rules concerning curtailment priorities for natural gas used for essential agricultural, feedstock and process uses. This mandate further refined the objectives of the ERA review.

Sections 401 and 402 of the NGPA direct the Secretary to prescribe rules which identify and rank three categories of natural gas usage: (1) high-priority, (2) essential agricultural, and (3) essential industrial process and feedstock use. Under Section 401, the Secretary of Agriculture is to certify natural gas requirements for essential agricultural uses. Section 403 directs the FERC to implement the rules prescribed under Sections 401 and 402.

On March 9, 1979, pursuant to Section 401 of the NGPA, the ERA issued a final rule governing curtailment priorities for essential agricultural uses applicable to the curtailment plans of interstate pipelines (44 FR 15642, March 15, 1979). The substance of that rule, with certain modifications discussed below, is incorporated in this proposed rule. On May 2, 1979, the FERC issued Order No. 29 (Docket No. RM 79–15), a final rule designed to assure adequate supplies of gas for essential agricultural users and incorporating by reference the ERA's final rule and the certification of essential agricultural uses and requirements by the Secretary of Agriculture. The Department of Agriculture, on May 11, 1979, issued a final certification rule establishing categories of essential agricultural users and the natural gas requirements for such users, as required by Section 401 of the NGPA.

The NGPA required that the Secretary of Energy issue the rule pertaining to essential agricultural use under Section 401 within 120 days of enactment, but placed no time requirement on the issuance of the rule under Section 402, concerning essential industrial process and feedstock gas uses. The Section 402 rule is also a part of the rulemaking being proposed at this time.

On March 13, 1979, the ERA issued a Notice of Inquiry (ERA Docket No. ERA–R–79–10, 44 FR 16954, March 20, 1979) concerning its "Review of Natural Gas Curtailment Priorities and Certain Other Related Gas Issues under the Natural Gas Act and the Natural Gas Policy Act." Another notice of inquiry, concerning the use of the Federal curtailment priority system to provide an incentive for coal conversion and the production of heavy oil, was issued on October 18, 1979 (ERA Docket No. ERA–R–79–49, 44 FR 61243, October 24, 1979). Comments in response to these notices of inquiry have been received and reviewed. In addition, ERA prepared a Draft Environmental Impact Statement (DEIS) and a draft Regulatory Analysis (RA) on this subject and they are available to the public. The findings from the DEIS and RA, as well as the comments from the notices of inquiry, were considered in developing this proposed rule.

Section II.—Need and Direction for Change

Our studies and analysis of the comments received in response to our two NOIs indicate that the present Federal curtailment priority system is (with the modifications discussed in Section III) adequate for managing long term and seasonal gas shortages at the interstate pipeline level. This is particularly true given the availability of the emergency powers provided to the President in Title III of the NGPA. Our studies also indicate that the most significant potential for further reducing the dollar costs of natural gas curtailments involves the movement of gas between systems and encouraging changes in the way curtailments are managed at the burner tip through the establishment of market or pricing mechanisms. These benefits cannot be achieved by the establishment of Federal curtailment priorities. The changes would require Federal and State actions and the integration of other aspects of natural gas regulation, such as rate structure, at the distribution company level.

A. Benefits From Changing Present Priorities Would Be Limited

Past Federal curtailment priorities, such as the 467–B system, are based in large part on the concept of end use. This concept assumes that the dollar cost of curtailment is relatively consistent within any particular class of end use and that the more costly the curtailment is to that end use, the more economically valuable a user's gas service in that class. Both State and Federal priority systems have traditionally placed the economically highest valued use in the highest priority.

The most economically efficient curtailment system is the one which most precisely recognizes the cost of curtailment to the end use customer. Priorities under the present system have been established to reflect variations in the cost of gas curtailment to customers (within the practical limits of end use classification), as well as consideration of certain health and safety factors and of distinctions between firm and interruptible service.

However, our findings indicate that there are actually widespread variations in the dollar cost of curtailment to users within the same end use category. For example, customers within the same category of gas use often exhibit wide differences in efficiency and type of alternate fuel burning equipment, in prices paid for alternate fuels, in the costs of rescheduling production, and in lost production and markets caused by interruptions in gas supply. Given these wide variations in costs among users with the same end use, further changes in curtailment priority designations to

delineate end uses more perfectly have limited potential for reducing costs of curtailment.

Our regulatory analysis indicates that there is a high degree of user familiarity with the existing system of Federal priorities and the plans implementing them, which is advantageous. Major changes to this system can create uncertainties that could lead to unnecessary expenditures by gas companies for supplemental gas supplies and facilities and by end use gas customers for additional alternate fuel supplies and equipment. Not only are there limited gains to be made within the current system by significantly changing present Federal priorities, but there also could be added costs incurred.

Further, the results of the regulatory analysis suggest that negative economic effects, similar to those observed when modeling a rolled-base period, would result from exercising burner-tip control or allocating interstate supplies based on total supplies available to the distribution companies serving an end user. Self-help efforts and established patterns of gas usage would be undermined, adversely affecting related financial investments and increasing the costs on some gas systems without necessarily allocating gas to those end users who have higher costs of curtailment. These negative effects could be minimized where buyers and sellers could voluntarily shift gas at mutually agreed upon prices. But, in mandating these shifts of gas, assuming the statutory authority to do so exists, considerable administrative and equity problems would be encountered.

According to the regulatory analysis, there is some potential for reducing the costs of the present system for managing curtailments if classification of customers' gas usage based on their cost of curtailment could be improved. However, improving the gas usage classification of end users according to precise definitions can be costly and would have practical limitations, due to the large number of users involved and the wide variation in types of customer usage and in the costs of curtailment within categories of use. There may be a potential for improving present classifications in a different fashion. This percentage limit option is discussed in the next section. While this type of approach might not be appropriate for all systems, it gives some added flexibility in coping with severe emergencies. States and distributors might want to consider the utility of this approach for their own needs when revising or establishing their own curtailment plans.

We have also considered whether there may be some other overriding policy concerns that would cause us to change the present priorities. Could the present priorities be structured in a manner that could facilitate movement to other forms of energy? This issue was addressed in the March 13, 1979, and October 18, 1979, NOIs previously referred to in the "Background" section of this Notice. The October 18, 1979, NOI examined the specific issue of providing access to "cheaper gas" by changes in the curtailment priorities of electric utilities, heavy oil producers and possibly industrial customers that demonstrate the potential for increased coal conversion and heavy oil production. This NOI also proposed a more limited option in the form of a FERC transportation rule permitting interstate access to user-owned off-system gas supplies as an interim measure pending the completion of conversion to coal or other non-petroleum fuel.

Based on the almost unanimous conclusion by the commenters that no positive benefits would result from the proposed option of providing higher priority gas as an incentive to increase conversion to coal and the production of heavy oil, we are not including any such provision in our proposed rule. Commenters pointed out that the purchased-gas-adjustment clauses of most electric utilities would not permit the savings from any reduced cost of fuel to be utilized for capital formation; that the amount of any savings would be insignificant in comparison to the capital costs of coal conversion; that higher priority access to natural gas may operate as inducement to delay coal conversion unless significant penalties are involved; and that natural gas would be diverted to lower valued uses and result in higher costs to other users.

While a FERC transportation rule, as opposed to a rule assigning a higher curtailment priority, would cause less disruption to the gas supplies of other users, the commenters indicated that there was a danger that over a long term such a rule could permit utilities to compete with interstate pipelines for limited gas supplies, possibly jeopardizing service to existing customers. Again, almost none of the commenters thought there would be any benefit in the form of increased or more timely coal conversions.

The comments concerning the option of assigning a higher priority for gas used in the production of heavy oil expressed the view that this idea must be worked out with the regulatory commissions of the involves States. There are also significant policy questions as to whether or not a positive energy balance could be achieved from this approach. Accordingly we are taking no further action in this Docket No. ERA–R–79–49 and we consider it to be closed. A more detailed summary of all the comments will be made available to the public in that docket.

While our findings indicate no valid economic or policy reasons for making major changes to the existing Federal priorities in contrast to the benefits to be gained from broader pricing changes, there was some concern, expressed by the commenters to our NOI, that we might be legally required to do so. The Unites States Court of Appeals for the District of Columbia in the *State of North Carolina and North Carolina Utilities Commission* vs. *The Federal Energy Regulatory Commission*, 584 F 2d 1003 (D.C. Cir. 1978) raised questions concerning FERC Order No. 467–B type curtailment priority plans which generally employ a set or fixed base period as the basis for allocating gas to establish priority categories. The Court attempted to separate the issue of establishing priorities, set on end use considerations, from the implementation mechanism chosen by the FPC to enforce those priorities. But the types of questions the Court raised cast doubt on whether any Federal priorities could be implemented without consideration being given to all the supplies available to an end user or without exercising direct Federal control at the burner tip. However, the Court, in the end, only required that the actual impacts of imposing priorities using set base periods be studied and considered by the FPC in approving an interstate pipeline's curtailment plan.

Subsequent to the *North Carolina* decision, Congress passed the NGPA. The priorities mandated in Sections 401 and 402 of Title IV of the NGPA required certain changes to the curtailment plans of interstate pipelines. For the first time, parts of the "467–B" end use system were established by law. Hence, as many of the commenters to the NOI pointed out, the passage of the NPGA resolved many of the questions initially raised by the *North Carolina* decision. In addition, there were indications in the Conference Report accompanying the NGPA that, at least as it applied to passage of the essential agricultural rule in the statutory 120 days, the new curtailment priorities should be implemented in a manner which did not throw "existing curtailment plans into disarray." The conferees also did not consider it necessary to adopt a new

base year for all curtailment plans in order to implement the essential agricultural rule.

B. Market Mechanisms Offer Greatest Benefits

Our review found that economic costs of curtailment are reduced when gas is permitted to move from customers with lower costs of curtailment to those with higher costs of curtailment. The greatest benefits can be achieved when gas is moved between systems. Our studies indicate that a pricing system has the greatest potential of any alternative examined for achieving these benefits since it provides a means to move gas to the industrial end users who value it most, while avoiding the costs associated with mandated shifts of supply. However, the actual effectiveness of a pricing system would depend on divising a practicable, efficient (non-costly) and equitable mechanism for implementing it.

An effective pricing system would allocate gas to end users on the basis of the price they would be willing to pay. The theory is that users would pay for gas up to the price that it would cost if their gas supplies were curtailed. Customers could signal changes in the values they place on additional gas supplies as their level of curtailment and costs of fuel substitution changed. In this way, a pricing system could more precisely allocate gas to those customers who experienced the highest economic cost of curtailment, without direct Government involvement.

In order to take advantage of the potential for more precisely reflecting the costs of curtailment without incurring the adverse costs of disrupting present user supply arrangements, however, pricing would need to be implemented at the burner tip. Consequently, much of the action required to implement an effective pricing system would have to be taken by the States. Federal aid towards implementing such a system likely would consist of eliminating regulatory barriers, especially at the pipeline level, which would prohibit pricing systems from emerging. There appear to be no practical alternatives for implementing a pricing system using Federal authority only.

Even without the introduction of pricing mechanisms, changes that would facilitate the movement of gas between systems under the current regulatory system potentially could save in the order of magnitude of $1 billion. The authorities in Title III of the NGPA provide for moving gas between systems during emergency natural gas supply shortages and also facilitate the movement of natural gas generally between the interstate systems subject to Federal jurisdiction and the intrastate systems subject to State jurisdiction. Such gas shifts serve to make the depth of any shortage less severe, thereby reducing costs. Our review indicates that sales of excess gas between systems should be encouraged and facilitated during lesser periods of curtailment to obtain economic benefits.

The FERC already has moved in this direction with the passage of rules pursuant to the authorities of Sections 311 and 312 of the NGPA (18 CFR, Part 284, Subparts A—E). The Commission has also recently issued regulations indicating its willingness to issue blanket transportation certificates to interstate pipelines to transport gas for each other and "Hinshaw-type" pipelines.

C. Proposed DOE Actions

In summary, there are limited economic benefits from further refining the current end use priority system. However, significant benefits could be achieved if Federal and State authorities make regulatory changes that carefully move the system towards one based on pricing. The mechanisms for accomplishing these goals are inextricably tied to FERC and State authorities. Therefore, apart from the changes we are required to make by NGPA Sections 401 and 402, we are proposing only minor modifications to the present system of curtailment priorities. These are discussed in detail in the next section of this Notice.

We will direct our future efforts towards encouraging the continuation and expansion of current FERC efforts to facilitate sales of surplus gas between pipeline systems. We will also work with the FERC and the States to develop effective pricing mechanisms and to seek ways of gradually introducing them into the current market, while protecting contracts and property rights.

Successful implementation by several States of bidding systems or other kinds of pricing mechanisms might bring about support for, or at least suggest the possibility of, reduced regulatory restraint on sales of gas between distributors. These inter-system sales could lessen the need for curtailment plans by improving supply in heavily curtailed areas. Regulatory and even legislative changes may be needed at both Federal and State levels before this could occur.

ERA will also study how gas rate designs might lessen curtailment costs. Section 601 of the Public Utility Regulatory Policies Act of 1978 (Pub. L. 95-617) (PURPA) requires that the "Secretary, in consultation with the Commission and appropriate State regulatory authorities and other persons, shall conduct a study concerning the effects of provisions of Federal law on rates charged by State utility agencies." The initial study, to be submitted to Congress in May, does not focus on curtailment issues. We propose to do additional studies that will examine how gas rate structures might be used to reduce the costs of curtailment by recognizing market forces. For instance, what would be the effect of assigning rates in accordance with curtailment categories, so that the higher a user's priority, the higher the cost of service?

We will work closely with the FERC and States on all these matters and, when appropriate, will exercise our Section 403 authority under the DOE Act to propose specific rules to the FERC for its consideration and action. We seek your comments, not only on the changes to the Federal curtailment priority system proposed in this Notice, but also on our intended efforts to move further in the direction of greater reliance on pricing mechanisms and increased sales between systems to better manage natural gas curtailments.

Section III.—Discussion of the Proposed Rule

Our proposed rule establishes natural gas curtailment priorities which ERA has determined are just and reasonable within the meaning of Sections 4, 5, and 7 of the NGA. When effective, these rules will be binding on all interstate pipeline companies. Nevertheless, the FERC, in implementing these rules, will have sufficient flexibility to consider the circumstances of individual interstate pipelines.

In developing the proposed rule, ERA considered the following factors:

1. The comments received in response to our notices of inquiry issued on March 13, 1979 and October 18, 1979. The comments in response to the March 13, 1979, NOI are summarized in Section IV of this Notice.

2. Our responsibility under the DOE Act to review and establish curtailment priorities.

3. Our responsibilities under the NGPA to issue rules establishing priorities for essential agricultural and industrial process and feedstock users. In establishing these priorities, Title IV of the NGPA requires the establishment of a high-priority category as the first priority (*i.e.*, the last category to be curtailed), followed by essential agricultural uses as the second priority, and essential industrial process and feedstock uses as the third priority. The NGPA does not address priorities for

uses of natural gas other than the three named.

4. The FERC's policy statement on curtailment priorities, *i.e.*, Order 467–B *et al.*, and the experience and the years of litigation involved in developing curtailment plans currently being used by the interstate gas pipeline companies in this country. Furthermore, we recognize that this litigation and the resulting plans involved many segments of the natural gas supply and demand chain, *i.e.*, the interstate natural gas pipelines, distribution companies, end-use customers, state and federal regulatory agencies and other interested parties.

5. The findings based on the analyses in our RA and DEIS, issued concurrently with this proposed rule.

We have concluded, based on our analysis and the comments, that the curtailment plans of interstate pipelines in effect on the date this rule is adopted, with modifications required by the rule, should continue to be used to distribute the pipelines' gas supplies to their customers during periods when there are insufficient natural gas supplies to serve the customers' requirements. In situations when the curtailment priority systems may not be effective to protect life, health or the maintenance of physical property, the emergency provisions of Title III of the NGPA can be invoked.

A section-by-section discussion of the proposed rule follows:

A. Section 580.01

Section 580.01 of the proposed rule explains that the purpose of the rule is to establish natural gas curtailment priorities for interstate pipelines consistent with DOE's responsibilities under the DOE Act and the NGPA.

B. Section 580.02

Section 580.02 defines terms used in the proposed rule, including the various types of natural gas uses assigned priorities, *e.g.*, residential use, essential agricultural use, essential industrial process use, and essential industrial feedstock use.

Except as specifically noted, the proposed definitions in Section 580.02 also include definitions from the present final rule concerning essential agricultural priorities and adopt in some cases the definitions used by the FPC (and now by the FERC) in conjunction with its Order 467–B policy guidelines. These last definitions appear in the Commission's "Rules of Practice and Procedure" (18 CFR 2.78). Both the definitions and the listing of curtailment priorities in our proposed rule reflect efforts to implement our responsibilities under the DOE Act and the NGPA while limiting changes in interstate pipelines' existing curtailment plans. We believe the definitions and curtailment priorities set forth in our proposed rule accomplish this goal, yet are sufficiently broad to allow the FERC flexibility in implementing the rule.

1. *"Commercial Establishment."*—Our proposed definition of a "Commercial establishment" is essentially the same as the FERC's definition of "Commercial" use (18 CFR 2.78(c)(2)). However, we have deleted the word "institution" from the FERC's definition because it appears to be redundant to "local, State and Federal government agencies." On the other hand, we have added the words "for sale" to the phrase "or the generation of electric power," in order to eliminate from this category commercial establishments that may use gas for on-site generation of electric power which is then sold.

In relation to this latter change, we considered whether excluding small commercial users (less than 50 Mcf on a peak day) that might generate some electricity for sale from the definition of "high-priority user" might adversely affect electricity supplies. We determined, however, that as a practical matter there was no small commercial production of electricity for sale. Our definition of "Commercial Establishment" also raised the question whether an establishment classified as commercial based on its use of natural gas should have its classification changed if it uses residual heat emanating from use of the gas to generate electric power. We decided that the primary use of the gas should be the determining factor in establishing curtailment priorities and that cogeneration activities associated with secondary use should not alter the basic classification.

2. *"Curtailment" and "Requirements."*—Commenters to our NOI maintained that standard definitions for "curtailment" and "requirements" were not appropriate because of the varying circumstances among pipelines. Some stated that in the natural gas industry the term "Curtailment" has generally covered any situation in which a gas company, because of shortages of supply or other factors, cannot make deliveries of gas to which its customers are entitled under applicable tariffs, service agreements and other governing instruments, such as curtailment plans. Therefore, the definition of curtailment may vary somewhat from pipeline to pipeline, as will the index from which curtailment is measured. Since we must define "Curtailment" in order to implement the NGPA priorities effectively, we have defined the term broadly, as "any situation where an interstate pipeline cannot make deliveries of all of its customers' requirements, including situations due to a lack of pipeline capacity." Capacity shortages have been included in the definition because the NGPA requires that high priority, essential agricultural, and essential industrial process and feedstock uses be protected from curtailment relative to other uses of natural gas and we interpret this mandate as applying to capacity shortages as well as supply shortages.

Commenters also suggested that "Requirements" must have the same meaning as in curtailment plans approved by the FPC and the FERC, which usually provide for an actual base period use of gas. The commenters contend that customers' rights to gas can only be protected by having specific and accepted figures written into the curtailment plans which are filed as part of interstate pipeline tariffs. We agree with this premise and have defined "Requirements" as "the volumes of natural gas that a customer of an interstate pipeline is entitled to under that pipeline's curtailment plan." We believe that our definitions of both "Curtailment" and "Requirements" are sufficiently broad to cover the objections to standard definitions.

3. *"Essential Industrial Process Use" and "Essential Industrial Feedstock Use".*—Section 402(c) of the NGPA requires that the Secretary (that is, Administrator, as the Secretary of Energy's delegate) "shall determine and certify to [the FERC] the natural gas requirements (expressed either as volumes or percentages of use) of persons (or classes thereof) for essential industrial process and feedstock uses" other than use as a process fuel or feedstock in the production of fertilizer, agricultural chemicals, animal feeds or food. NGPA Section 402(d) defines "essential industrial process or feedstock use" as "any use of natural gas in an industrial process or as a feedstock which the Secretary determines is essential."

The definitions of "feedstock gas" and "process gas" presently being used in relation to curtailment plans filed with the FERC are expressed at 18 CFR 2.78(c) (7) and (8), respectively, of the Commission's "General Rules of Practice and Procedure." "Feedstock gas" is defined as "natural gas used as raw material for its chemical properties in creating an end product." "Process gas" is defined as "gas use for which

alternate fuels are not technically feasible such as in applications requiring precise temperature controls and precise flame characteristics."

A number of commenters recommended the continued use of the FERC's definitions because these definitions have been used for several years and are familiar to the interstate pipelines and their customers, who have worked together with industry Data Validation Committees to categorize their end use customers' uses of natural gas into process and feedstock categories. Other comments suggest a definition of "essential industrial process use" based on the technology of gas-burning equipment, *i.e.*, where conversion to a fuel other than gas will require extensive replacement or modification of equipment or cause deterioration in the quality of the resulting products, or where a direct flame is involved in the application.

Commenters also suggested that natural gas used for ignition, startups, testing and flame stabilization should be included in the "essential industrial process use" category. They pointed out that these uses were exempted by Congress in Sections 607(e) of the PURPA and 103(a)(15) of the Powerplant and Industrial Fuel Use Act of 1978, Pub. L. 95–620 (FUA), from prohibitions on the boiler fuel use of natural gas.

In attempting to achieve a definition of essential industrial process use, we considered three approaches as follows: (1) definition by product, *e.g.*, by reference to Standard Industrial Classification (SIC) codes, which the Secretary of Agriculture used in defining "essential agriculture use"; (2) definition by equipment, *e.g.*, by reference to the use of furnace kilns and ovens; and (3) definition by process, *e.g.*, by reference to the processes of drying, annealing and fabricating. Our RA found that each of these ways is in some respect inadequate, because of a lack of precision in identifying the high-priority gas that this category is supposed to represent. We concluded that satisfactory precision in identifying essential industrial process uses can be attained only on a case-by-case basis, and that a narrow definition, such as one based on the technology of the equipment and the magnitude of conversion costs, could reduce gas curtailment shortage costs by giving a higher priority only to very select uses. Conversely, our analysis finds that using a broader definition, such as one based on SIC codes, is likely to increase the economic costs of curtailments.

Hence, our definition of "essential industrial process use" consists of three tests. The first test relates to the technology of the equipment, and includes certain gas uses which the commenters and our RA indicate are "process uses." The three aspects of this test are where "(1) a direct flame or precise flame characteristics are required; (2) precise temperature controls are required; or (3) the gas is used in the necessary processes of ignition, startup, testing or flame stabilization." The second definitional test is that these uses are considered to be "essential," only in situations where conversion to a fuel other than natural gas would cause a significant deterioration in the quality of the product resulting from the industrial process or would require costly modification to or costly replacement of equipment. The third test requires the FERC to determine that use of a fuel other than natural gas is neither economically practicable nor reasonably available as an alternative.

The definition of "essential industrial feedstock use" is based on the Order No. 467–B definition, with the addition of the FERC-implemented alternate fuel test. The comments and our RA indicate that it is simpler to identify feedstock use than process use and both indicate that the traditional Order No. 467–B definition of feedstock use is adequate.

4. *"High-Priority User".*—We have in this proposed rule the same definition "high-priority user" which is in our present rule on essential agricultural uses. However, some of the commenters questioned whether we should include as high-priority users the manufacturers of products which are considered to be essential. The preamble to our final rule on curtailment priorities for essential agricultural uses (44 FR 15642, March 15, 1979) states that "we do not have sufficient information at this time to warrant expanding the definition of protection of life, health and property to include the manufacturing of specific end products, such as pharmaceuticals." We did not have then, nor do we now have, sufficient justification to warrant the use of an end-product approach for determining "high-priority users." To include the manufacturers of one end-product, such as pharmaceuticals, as "high-priority users" would require a comparative analysis of the relationship to "life, health and maintenance of physical property" of many other end products. We agree with the conclusion of the March 1977 Natural Gas Survey Report to the Federal Power Commission, submitted by the Technical Advisory Committee on Curtailment Strategies, that with our highly integrated economy in which the output of particular products is likely to depend upon a host of other products and activities, any efforts to rank natural gas curtailment priorities according to the importance of end products derived by the use of gas would be hopeless.

Our proposed rule does enable any individual manufacturer to seek relief pursuant to the emergency procedures provided by the FERC's regulations (18 CFR 2.78(a)(4)), which we have specifically incorporated by reference in Section 580.02(b)(10)(iv) of the proposed rule. Moreover, the adjustment procedures provided by Section 502(c) of the NGPA are available as a means of seeking relief from hardship. Also, states may provide relief mechanisms to individual users. We assume that the FERC would also continue to provide procedures under 18 CFR 2.78(b) for filing requests for relief from curtailment "upon a finding of extraordinary circumstances after hearing initiated by a petition filed under Section 1.7b" (18 CFR 2.78(a)(2)).

C. Section 580.03

1. *Section 580.03(a).*—Section 580.03(a) requires that the curtailment plan of each interstate pipeline must contain the five priority-of-service end-use categories there specified, except as provided in § 580.03 (g) and (h). As mentioned before, Priority One (high-priority uses), Priority Two (essential agricultural uses) and Priority Three (essential industrial process and feedstock uses) are required by Sections 401 and 402 of the NGPA.

For purposes of determining how uses other than those specified in Priorities One, Two, and Three should be treated, including those agricultural, process and feedstock uses for which the FERC determines that alternate fuels are reasonably available and economically practicable, the comments and our RA support employing the capability to use alternative fuels as a factor for assigning priority categories. The RA concluded that larger-volume users have lower economic costs of fuel substitution per unit of gas used than smaller-volume users. Since our general approach to curtailment favors minimizing the economic costs of curtailment, we have used this cost of substitution approach as the basis for establishing categorical distinctions for Priorities Four and Five.

The comments point out that it is almost impossible logistically for an interstate pipeline to curtail, on a short-term basis, any customer using less than 300 Mcf per day. This volumetric grouping of customers includes most of the large commercial and small industrial customers and we have presumed that these users do not have alternate fuel capability. Thus, we have

concluded that Priority Four should include all natural gas users not specified in Priorities One, Two or Three, with requirements of at least 50 Mcf, but less than 300 Mcf, on a peak day.

Priority Five includes all other uses not included in Priorities One, Two Three or Four. This is consistent with the comments to our NOI, which recommended that curtailment priorities should distinguish between larger-volume and smaller-volume users. Priority Five includes four subpriorities based on differences in volumes of requirements for these larger-volume users. We have adopted the different volumetric levels provided for in the FERC's Order No. 467–B policy statement (18 CFR 2.78), but other ranges may be used in a pipeline's curtailment plan if it can be demonstrated to the FERC that they are just and reasonable.

As previously mentioned, NGPA Section 402 requires that the Secretary not only define "essential industrial process and feedstock use," but also to certify to the FERC the natural gas requirements for such uses. One issue raised by that mandate is whether Congress intended to provide for increased volumes of use (load growth) by essential industrial process and feedstock uses. The preamble to the FERC's final rule for the implementation of NGPA Section 401 (Order No. 29, issued May 2, 1979 (44 FR 26855, May 8, 1979)) states "the Commission's reading of the NGPA and the many comments and legal analysis provided it in the extensive record in this proceeding leads [sic] it to the conclusion that some agricultural load growth was intended by Congress" for essential agricultural uses. Accordingly, FERC incorporated by reference the U.S. Department of Agriculture rule which gives effect to load growth. In this respect, FERC was acting consistently with the language in NGPA Section 401(c) requiring the Secretary of Agriculture to certify to the FERC and DOE the natural gas requirements for essential agricultural use in order to meet "full food and fiber production." The FERC in its Order No. 29 authorized essential agricultural users, when applicable, to receive additional volumes of gas under curtailment plans with fixed base periods, *i.e.*, to receive contract volumes instead of base period requirements. Our proposed rule recognizes this determination by the FERC by not limiting essential agricultural uses (Priority Two) to base period volumes.

We do not, however, interpret Section 402 of the NGPA as recognizing similar load growth for essential industrial process and feedstock uses other than those related to the agricultural activities listed in Section 401(f)(1)(B), and comments to our NOI support the view. Therefore, our proposed rule certifies to the Commission that the natural gas requirements for essential industrial process and feedstock uses are the volumes that these users are entitled to under the curtailment plans of interstate pipelines, determined by using a fixed base period. Essential agricultural users which might otherwise qualify as essential industrial process and feedstock users are of course treated in Priority Two and therefore their requirements are not restricted to a fixed base period.

2. *Section 580.03(b).*—Section 580.03(b) requires that complete curtailment of lower priority category volumes be made before curtailment of any higher priority volumes may begin. However, our RA found, based on surveys of industrial consumers, that on certain gas systems, curtailing only a certain percentage (*e.g.*, 80 percent) of a priority-of-service category, instead of 100 percent, could reduce the costs of curtailment. Retention of small amount of gas in one category is often critical in helping an end user to cope with a shortage and could prevent shutting a plant down or drastically reducing its output. Our analysis found that the costs of coping with the loss of the last increment of natural gas in a priority category (*e.g.*, 20 percent) are many times higher than those resulting from curtailment of the rest of a user's requirements in that category.

Therefore, the proposed rule allows an unspecified portion of the requirements for Priority Five, or any of its volumetric subcategories, to continue to be served even while a higher priority category or subcategory is being curtailed, if it is demonstrated to the FERC that such delivery in individual situations is just and reasonable. Because of the statutory protection given the first three priority categories by the NGPA, however, all the requirements for Priority Four must be curtailed before a pipeline may curtail deliveries for essential industrial process and feedstock uses (Priority Three).

3. *Section 580.03(c).*—Concerning whether we should recognize a distinction in curtailment users based on firm or interruptible service, some commenters pointed out that the NGPA is completely silent on this question and that we must assume that Congress intended to maintain the *status quo*, *i.e.*, to decide on an individual pipeline basis, as the FERC has done in the past. Others pointed out that differences in interpreting this distinction would cause difficulty in implementing a rule of general applicability. They also mentioned that interruptible contracts are important because they facilitate load balancing, *i.e.*, management of supply and demand.

As some commenters and our RA indicate, there are numerous differences among interstate pipelines in terms of their treatment of firm and interruptible service, based on such factors as location and types of supplies, geographic territory serviced, load characteristics, operating practices, and climatic conditions encountered. Furthermore, the FERC has recognized this premise in Opinion No. 754, *Panhandle Eastern Pipeline* (Docket No. RP71–119) issued on February 27, 1976, in which it approved the elimination of the firm/interruptible distinction from Panhandle Eastern's curtailment plan. However, it should also be noted that in other curtailment cases decided after *Panhandle*, the FERC approved the retention of the firm/interruptible distinction.

Based on our review of the comments and consideration of the findings from our RA, we conclude that in an end use type curtailment plan, such as the one proposed by this rule, no distinction should be made between firm or interruptible service. Making such a distinction is not in accord with the theory behind an end use plan. Moreover, it is not in accord with the most useful system for managing curtailments, which is that natural gas uses should be grouped and given priority according to their economic costs of converting to another fuel. It is our judgment that the NGPA precludes such a distinction for the first three priorities. However, our proposed rule provides that such a distinction may be made with regard to Priorities Four and Five, if it is demonstrated to the FERC that the method is just and reasonable for a pipeline's particular circumstances.

4. *Section 580.03(d).*—The proposed rule adopts a procedure for handling storage injections which is the same as that in our present rule on curtailment priorities for essential agricultural users. Interstate pipelines may inject natural gas into storage or deliver gas to their customers for storage injection, unless it is demonstrated to the FERC that such treatment is not reasonably necessary to meet the requirements of high-priority and essential agricultural, process and feedstock users in their respective order of priority. Since storage is an extremely important component of a pipeline's

operations, this treatment will give sufficient flexibility to allow the filing of storage during the summer in order to protect gas service to higher priority users during the winter.

Some commenters suggested that all pipelines be required to use "storage sprinkling," whereas others favored the "block" method. However, most agreed that the major purpose of storage injections is to protect high priority customers and that either method would do this. We see no valid reason to mandate that all pipelines use one method or the other or to conclude that one of these methods is better than the other for a particular pipeline system. Hence, the proposed rule does not specify a method.

5. *Section 580.03(e).*—As pointed out in Section IV of this proposed rule, several respondents used the NOI comment process to raise specific issues or concerns not listed in our NOI. For example, a group of small municipal distribution systems recommended that ERA issue a rule that would incorporate into any interstate pipeline company's curtailment plan a standard small customer exemption provision. These respondents claim that this type of provision is "part and parcel of virtually all pipeline curtailment plans," but that the terms and conditions of these existing small customer exemption provisions vary greatly. They claim that the present provisions "provide woefully inadequate protection," due to the lack of leverage of small customers as to the plans filed by their pipeline suppliers and in settlement proceedings with other parties. They pointed out that although the Commission's case-by-case approach to curtailment proceedings has succeeded in demonstrating that small customers are indeed a class distinct from large customers, it has failed to develop a standard small customer exemption provision that truly reflects the vast differences between the two distinct classes of customers.

While the respondent's suggestion for a standard small customer exemption may appear to have merit, it does not address the problem of whether such a standard provision should be equally applicable to all pipelines, since the size of a "small" customer is a matter relative to the size of other customers, and such a designation will vary among individual pipelines. Therefore, at Section 580.03(e) of the proposed rule, we have included a provision stating that "[n]othing in this rule shall prohibit an interstate pipeline from continuing to serve any or all of the requirements of a customer which is a small local distribution company when the requirements of other customers are being curtailed, if it is demonstrated to the Commission that it is just and reasonable." We have not defined the term "small local distribution company," so that the FERC will have ample flexibility in implementing this provision.

6. *Section 580.03(f).*—We have received inquiries from the public asking whether we intend to provide an incentive to cogeneration activities by giving higher priorities to the use of natural gas in facilities which cogenerate with residual heat from the use of gas. This issue is addressed by Section 580.03(f) of the proposed rule, which states that "[t]here shall be no differentiation in curtailment plans among natural gas users or uses based on any cogeneration activities by gas users." We realize that cogeneration activities make more complete use of an energy source and should be encouraged, but we do not believe natural gas curtailment plans are the proper vehicle for providing such incentives. There is a potential for conflict between providing incentives for cogeneration and the basic purpose of a curtailment plan, which is to manage the use of gas during curtailments so as to reduce the impacts of the shortage. Furthermore, in addition to the implicit economic incentives for a gas user to engage in cogeneration activities, statutory authorities provide other incentives for cogeneration activities, *e.g.*, Section 210 of the PURPA and Sections 212(c) and 312(c) of the FUA.

7. *Section 580.03(g).*—Most of the commenters to our NOI favored retaining the fixed base period concept, which is currently used by most interstate pipelines with curtailment plans. It was argued that if the fixed base period concept used in existing curtailment plans of interstate pipelines were to be altered, the self-help measures undertaken by these pipelines' customers, often at tremendous cost, would in effect be appropriated for the benefit of other utilities and their customers. As the comments indicated, there are many advantages to the use of a fixed base period that support not altering the procedure. For example, a fixed base period:

1. provides certainty and administrative simplicity to a curtailment plan;
2. provides an incentive for conservation practices;
3. provides an incentive for minimizing low priority usage;
4. encourages self-help methods; and
5. provides stability for planning purposes.

Furthermore, our RA estimates that it could cost the industry in the order of magnitude of $200 million if the concept of rolling or updating the base period every two years, to adjust for load growth and other changes, was required of pipelines presently using fixed base periods.

Some commenters contended that the use of a fixed base period concept prevents load growth. However, we agree with the comments of others that a fixed base period does not prevent load growth altogether, because customers may upgrade their loads within their own systems by adding high-priority loads at the expense of their own existing lower priority customers or by obtaining supplemental gas supplies. Thus, the fixed base period procedure controls growth and at the same time removes the incentive for distributors to compete for interstate pipeline supplies by enlarging their higher-priority obligations and thus defeating the self-help efforts of other customers. We also agree with the comments that any alteration of base periods should be approached on the basis of all the facts surrounding the operations of an individual pipeline in providing service to its customers. Therefore, Section 580.03(g) does not preclude an interstate pipeline from rolling or updating its base period, if it can be demonstrated to the FERC that to do so is just and reasonable.

8. *Section 580.03(h).*—Section 580.03(h) states that "[n]othing in this rule requires that a curtailment plan in effect on the date of adoption of this rule be changed, except to the extent that changes are necessary to protect Priorities One, Two and Three from curtailment." The purpose of this subsection is to make it clear that the presently effective curtailment plans of interstate pipelines need only be changed to the extent necessary to implement the statutorily required priorities.

While the comments and the RA support the conclusion that the proposed rule reflects a curtailment system that would cause the least economic costs of curtailment, we do not believe that change solely for the sake of change is warranted. The administrative costs related to making unrequired changes may well outweigh the economic benefits to be gained. Hence, it is not our intention to require that existing, effective curtailment plans be changed, except to the extent that modifications are necessary to protect the first three priorities. However, in protecting Priorities One through Three, should other changes become necessary, they

should comply with the provisions of this rule.

Any pipeline that does not have an effective curtailment plan on the date the final rule becomes effective and which later files a curtailment plan with the FERC as part of its tariff will be required to comply with the provisions of this rule. Likewise, any interstate pipeline that has an interim or temporary plan in effect should plan to modify its permanent curtailment plan to comply with these provisions.

9. *Section 580.03(i).*—Section 580.03(i) expressly provides that where an essential agricultural user, as defined by this proposed rule, also qualifies as a high-priority user under this rule, it shall be considered a high-priority user rather than an essential agricultural user.

Section IV.—Summary of Comments

In the NOI published in the Federal Register on March 20, 1979, ERA solicited comments on twenty-two issues related to the review and establishment of natural gas curtailment priorities. Over seventy-five written comments were received in response to our NOI. While all the comments were considered in the drafting of our proposed rule, it is impractical to try to address each issue separately. Therefore, only the major issues are discussed below. The actual comments and a more detailed summary of the comments are available to the public in ERA's Office of Public Hearing Management. For address see "Addresses" section of this proposed rule.

A. Relationship of Emergency Authorities to Curtailment Priorities

The general comment from most pipelines and distributors on the relationship between the emergency purchase and allocation authorities in Title III of the NGPA and the federal curtailment priority system is that the two are distinctly separate. They observe that curtailment priority policies deal with the on-going problem of allocation of an insufficient gas supply whereas the emergency authorities deal with the means to cope with any sudden, severe gas shortage that threatens high priority users and that persists even after all other routine curtailment remedies have been exhausted. The clearest concern of the commenters is that pipelines and distributors remain free to exercise voluntary means, such as storage development, interpipeline brokerage, direct purchase by users, and synthetic natural gas production, to respond to a general shortage situation. Their opinion is that emergency authorities should be held in restraint and only be invoked by the President when clearly needed.

Comments on the issue of the adequacy of the present federal curtailment priority system fall into two categories: (1) those pipelines, distributors and state regulatory agencies that believe the present curtailment priority system is adequate and that no further contingency plans are needed, and (2) those high priority users who had concerns about the security of their own gas supply during severe curtailments. Commenters arguing the first position claimed that the present curtailment priority system performed its task of allocation during periods of short supply and outlined voluntary coping methods developed by the industry, especially since the shortage during the 1976–77 winter. Freedom, flexibility and rapid responsiveness were seen as crucial to the adequacy of a curtailment system, and none of these respondents argued for any additional contingency plans. It was pointed out that any effective coping with a shortage would have to be tailored to the specific details of the shortage, which are not actually known until the emergency occurs.

Putting forward the second position, some higher priority industrial users commented that any priority system should require that during emergencies even high-priority customers with alternate fuel capability (*e.g.*, hospitals) should be required to switch to alternate fuels or to reduce their gas usage. One commenter noted that it would be difficult to develop such a program at the federal level and suggested that local utilities be required to develop them. Furthermore, someone suggested that distribution companies be required to use additional storage, rather than curtailable loads, as a cushion to protect their temperature sensitive loads, *e.g.*, residential.

B. NGPA Implications for Curtailment

One of the issues raised in the NOI was whether existing end-use data is adequate to allow ERA to issue the essential industrial process and feedstock rule required by NGPA Section 402 and a rule dealing with other aspects of curtailment priorities. Most commenters stated that there is already enough data available through current reporting procedures and that any data needed by ERA to establish and review curtailment policies, or by the FERC to implement curtailment priorities, could be obtained, as needed, from the individual pipelines. One commenter did suggest that it was important to have actual end use and impact data prior to establishing the system of priorities, because these data could provide information concerning the efficacy of maintaining distinctions between low priority users.

On the issue of whether a distinction between firm and interruptible contracts should be made, commenters stated that distinguishing between priority users with firm contracts and interruptible contracts was inappropriate in regard to curtailment priority systems. They pointed out that such treatment is inconsistent with the theory of end-use type curtailment systems (*e.g.*, the Order No. 467–B system), the present basis for Federal policy on curtailment priorities, and also inconsistent with the intent of Sections 401 and 402 of the NGPA. They commented that the lack of such a distinction should continue unless there is evidence on a case-by-case basis it would be in the public interest to depart from this approach. Some commenters pointed out that differences in interpreting this distinction by individual companies and in various regions would cause difficulty in implementing a rule of general applicability. Others argued that interruptible contracts are important, because they facilitate load balancing. Still others pointed out that the NGPA does not address the question of a distinction between users with firm and interruptible contracts and they interpreted this as support for the *status quo.*

C. Placement and Treatment of Natural Gas Uses in a Priority Scheme

A number of commenters, including distribution companies, pipelines, state public utility commissions and industrial end users, argued against subdividing broad categories of curtailment priorities. They suggested that all users should be treated equally within priority rankings and that any subdividing should be left to the Commission's discretion, if necessary to do so for an individual pipeline. One commenter stated that any benefit resulting from refinements based on subcategories would be outweighed by the administrative costs. Mny commenters urged restraint in subdividing or ranking end-users beyond the requirements of Sections 401 and 402 of the NGPA, pointing out that present curtailment plans represent years of litigation effort and that there should be minimal disruption of these plans. Several commenters favored a plan whereby all users, except those placed in higher categories by Sections 401 and 402 of the NGPA, would be grouped together and treated equally. Others recommended that a distinction be made based on the volume of gas used by customers, with

larger-volume users curtailed prior to smaller-volume users.

Commenters suggested that our proposed rule defer all alternate fuel determinations to the FERC, because the Commission already has responsibilities assigned by law in this area. The NGPA gives the Commission the responsibility for determining whether alternate fuel capabilities exist as part of the determination of whether users will be included in the essential agricultural, feedstock, and process user categories for curtailment priority purposes. These commenters thought that allowing the FERC also to assume such responsibilities for uses not in the NGPA's mandated priorities would prevent conflicts, provide consistency and make the process easier to administer.

Concerning the proper placement in priority plans of users excluded from the NGPA Sections 401 (agricultural) and 402 (process and feedstock) priorities because of alternate fuel capability, several commenters suggested that these users should be placed in the priorities that they would occupy in curtailment plans but for Sections 401 and 402. Others suggested that all users that have alternate fuel capability, whether apartment houses, schools, hospitals, agricultural, commercial or industrial users, should be place below essential industrial feedstock and process uses in curtailment plans. The reason given was that it was irrational to require an industrial manufacturer to shut down his plant when a user with alternate fuel capability is using gas.

On the issue of the treatment of gas injected for storage, comments varied, but generally concluded that the pipelines' traditional treatment of storage injection volumes for curtailment priority purposes is acceptable. One position taken was that storage injection requirements should be placed in the highest priority category. Furthermore, they said that whatever provisions are implemented on the priority of storage injection volumes should be sufficiently flexible to allow the FERC to take action as necessary to insure pipeline delivery of storage injection volumes. Commenters generally agreed that either the block method or storage sprinkling would protect high priority customers and that the present treatment of storage injections in pipeline curtailment plans have been effective in protecting high priority customers in the past. Generally, commenters agreed that the FERC should have the responsibility to determine the best treatment of storage injection volumes in regard to the curtailment plans of the various pipelines.

Most commenters thought that a ban on using natural gas as a boiler fuel should not be incorporated into any general curtailment priority rule. A variety of reasons were given, as follows: any ban would be an encroachment on state and local autonomy; load balancing considerations proclude a ban; self help efforts would be discouraged; effective end use curtailment can achieve the same goals; a local economy may be dependent on a specific industry which requires low priority boiler fuel gas; and agricultural boiler fuel use is protected by Section 401 of the NGPA. Commenters also pointed out that Section 607 of the PURPA provides for a ban of the boiler fuel use of natural gas for electric powerplants and major fuel burning installations during a natural gas supply emergency declared by the President and Section 303 of the NGPA authorizes the President to allocate these gas supplies to high-priority uses. The commenters considered these potential avenues for banning low priority boiler fuel to be adequate.

Commenters from pipelines, distribution companies and industrial end users all agreed that on-site electric generation should not be given special treatment in the curtailment priority system. This is because many current curtailment plans favor lower-volumes uses, such as on-site generation, over larger-volume uses, such as generation by electric utilities. On the other hand, commenters argued that there should not be any volumetric limitations on the use of gas for on-site generation. The commenters mentioned that where on-site use involves co-generation facilities the efficiencies are vastly superior to those of more conventional gas fired electric utility generating stations. They also noted that volumetric limitations would be inconsistent with the policies and objectives of FUA Sections 212(c) and 312(c), PURPA Section 210 and NGPA Section 206(c), each of which recognizes the desirability of co-generation.

D. Definitions of "Process Gas" and "Feedstock Gas"

Most commenters recommended that the FERC definition of "process gas" in 18 CFR 2.78(c)(8) be retained. One commenter, however, stated that the present definition for "process gas" is inadequate and that additional factors should be considered, such as the technology of existing gas burning equipment; whether a direct flame is involved in the application; whether conversion to another fuel would require extensive replacement or modification of equipment; and whether the use of an alternative fuel may cause deterioration in the quality of the product. Another commenter suggested that a clear definition is impossible. Others suggested that "essential process gas" be defined as all industrial gas not used for feedstock, plant protection or boiler and flame stabilization. A number of commenters recommended that users having the capability to substitute another fuel for gas should be given equal treatment regardless of whether the alternate fuel capability has been installed.

Most commenters agreed that the current FERC definition of "feedstock gas" in 18 CFR 2.78(c)(7) also should be retained. As most feedstock uses will be in the agricultural priority category and few such uses could employ substitute alternate fuels that are economically available, there appears to be a limited need for any change in the definition. Commenters agreed that ERA should certify the extent to which base period volumes attributable to feedstock should be considered "essential" and leave to the FERC and State public service commissions the issue of substitutability of alternate fuels.

All commenters on the relationship of off-system gas supplies to the certification of process and feedstock uses recommended that availability of off-system supply not be a factor in certifying requirements. Such treatment would discourage self-help efforts by these users. Some commenters also questioned whether appropriate criteria could be developed for determining the availability of off-system supplies. Some commenters stated that off-system supplies are more reasonably available to lower priority users that have alternate fuel capability and whose operations are not endangered by interruption of off-system supplies. Others argued that Section 402 of the NGPA does not give FERC the authority to exclude from curtailment priority gas users which might be able to substitute supplies from other sources other than their distribution companies because under state regulation and utility tariffs distribution company customers have a right to service.

E. Definitions of "Curtailment" and "Requirements"

A number of commenters offered various definitions for the terms "curtailment" and "requirements." "Curtailment" was generally agreed to be the inability to deliver the volumes of gas demanded or necessary to meet contract requirements. Commenters explained that the term "curtailment"

has long been used by the gas industry to cover any situation in which an operating gas company, by reason of emergencies, shortages of supply or other factors, cannot make the deliveries of gas to which its customers are entitled under governing instruments such as curtailment plans, tariffs and service agreements. Furthermore, the operational definition of "curtailment" may vary somewhat from pipeline to pipeline with regard to the index from which curtailment is to be measured. All of the commenters agreed that "curtailment" should not be merely a reduction in deliveries from contractual requirements, but rather should continue to be measured relative to actual base period end-use data for some period of time prior to a shortage and adjusted for specific factors such as weather. Some commenters suggested that ERA not adopt a standardized definition of "curtailment."

With regard to "requirements," some commenters said that since the term is not defined in the NGPA, it must have the same meaning as has been developed in FPC and FERC-approved pipeline curtailment plans, *i.e.*, an actual base-period use, as adjusted for downtime and other specific factors. Furthermore, they argued that the curtailment plans must specify the rights of the pipeline's customers and this can only be accomplished by way of specified and accepted volumes written into the tariffs.

F. Load Growth and Base Period for Curtailment Plans

A number of commenters, including pipelines, users, distribution companies and state commissions, suggested that the issue of load growth is the responsibility of the FERC and/or state regulatory agencies, but not of the ERA. Some commenters suggested that no growth in the number of customers should be allowed and no additional contract volumes delivered without clear and adequate evidence from the pipelines of the existence of gas reserves capable to meeting their present customers' requirements for five years. The reason given for such a condition was that present customers' needs should be protected before allowing any load growth. These commenters recommended that if any growth were to be allowed, such additions should be interruptible and placed in the lowest curtailment priority. Another commenter recommended that service to new customers not be allowed unless gas was available either from volumes conserved on the system or from supplemental supplies. Another suggested that curtailments could be related to contract volumes, but also pointed out that often no formal contractual relationship exists between a gas company and its customers.

Other commenters recommended that load growth should be allowed for high-priority customers (*e.g.*, residential), even if curtailment of lower priority users is occurring simultaneously on the same system, provided that such growth does not jeopardize service to other high-priority users. Commenters also suggested that this load growth procedure would upgrade a system's load to encourage higher priority uses of gas and that this procedure has been followed by some state regulatory agencies.

Commenters also pointed out that load growth must be allowed for essential agricultural users, even if it reduces deliveries to lower priority customers, because Congress provided for this growth in the NGPA. The comments received, in general, supported the position that whether load growth should be allowed on a system subject to curtailments is not amenable to a general rule because of the variety of situations concerning supplies and mixes of customers on different gas systems.

Regardless of the load growth issue, most of the comments from pipelines, distributors, industrial end users and state regulatory agencies favored retaining the fixed base period concept for curtailment plans. The commenters agreed that changing the fixed base period concept may create as many problems as it attempts to address. Advantages given for a fixed base period were as follows:

1. Distribution companies have more control of their gas supplies and therefore are better able to plan the allocation of these supplies to their end-use customers. This provides certainty and administrative simplicity to their curtailment plans;

2. It provides incentives for state regulatory commissions and utilities to pursue conservation practices by allowing any natural gas conserved in a state to be used to benefit customers within that state;

3. It provides some incentive for customers to minimize low priority usage;

4. It encourages self-help methods by requiring load growth to be based on supplemental supplies of gas;

5. It provides stability, and plans for supplemental supplies can be best developed on a known and stable base;

6. Customers' requirements for a pre-curtailment period are the best estimates.

A number of commenters felt that changes to base periods should be the FERC's responsibility under its implementation and enforcement authorities, rather than under the ERA's authority to review and establish priorities. One commenter pointed out that no change in base periods is required under the NGPA, except as necessary to implement the agricultural rule. On the other hand, another commenter suggested that the intent of Congress, as expressed in the NGPA Conference Report discussion of Section 401, was that the FERC reopen existing curtailment plans only to the extent necessary to implement the priorities established by the NGPA and that it was not intended for such reopenings to result in adoption of new base years for curtailment purposes. Nevertheless, several end-users and a distribution company favored a rolling or updated base period and suggested using the highest year's actual use out of the last five years as the base period volume, thus protecting users who have a cyclical product demand. Another commenter suggested that base year customers should be retained, but that their end-use profiles should be updated.

A few agricultural users commenting on this issue interpreted Section 401 of the NGPA as requiring that current agricultural requirements be met, thereby calling for a rolling base period. A state regulatory agency suggested that a fixed base period be maintained during periods of actual curtailment by pipelines, but that during a period when a pipeline was not in a curtailment status, the base period volumes be updated. It also suggested that the use of rolling base periods during curtailment would penalize conservation, which is of vital importance during curtailment. Conversely, updating or rolling the base period during non-curtailment periods would make the base period volumes more reflective of the actual end-use requirements of customers.

Commenters generally agreed that the issue of credit for volumes of gas conserved by customers is only relevant if base periods are changed.

G. Development of Supplemental Supplies and New Energy Sources

Many commenters agreed that there is no reason to change the present policy of not considering a pipeline customer's supplemental gas supplies as subject to its pipeline's curtailment plan. Many of the comments suggested that the present end-use considerations and fixed base periods in curtailment plans provide incentives for both conservation and conversion to more plentiful fuels such as coal. A few industrial users felt that

supplemental supplies should be included as part of system supply, arguing that this should be an element of any curtailment policy based on the concept that supplies should be allocated in order to achieve the most efficient use of resources. Others stated that smaller distribution company customers of pipelines operate financially marginal systems and do not have sufficient revenues to obtain supplemental supplies. These small customers are discriminated against when supplemental supplies are not considered as part of a pipeline's supply system subject to curtailment.

H. *Scope and Jurisdiction of the General Curtailment Authority*

Commenters responded negatively on whether federal policy or rules should be applied directly at the distribution level. Most commenters expressed alarm at the prospect of such federal regulation. They mentioned the delay, great expense, inflexibility regarding varying local needs, and the lessening or elimination of self-help programs by distribution companies as reasons why federal regulation at the distribution level was unwise.

Some commenters questioned the lawfulness of attempting to apply the curtailment plans of interstate pipelines at the distribution company level. Commenters taking the position that federal curtailment plans could not and should not be applied directly at the distribution company level pointed out that currently no vacuum exists in authority at the state and local level. Other commenters suggested that there is legal authority for applying a federal curtailment priority rule directly at the distribution company level. Some of these respondents maintained that the legal authority for such action was the Commerce Clause of the United States Constitution. Others claimed that the FERC has the necessary statutory authority and could condition deliveries of higher priority gas to make the distribution companies conform to the federal plan. These observers maintained that there was precedent for such a rule in FPC Order No. 533 and FERC Order No. 2. Some commenters even interpreted Sections 401 and 402 of the NGPA as requiring federal regulation of local distributors.

Almost all commenters, on the issue of the scope of the rule to be adopted, felt that ERA should promulgate a broad, comprehensive system of priorities, leaving the FERC with enough flexibility to consider differences between pipelines when implementing the system. Several commenters pointed out that there was no reason to believe that narrowly drawn rules would lead to fewer or shorter curtailment plan hearings than have been necessary in the past, and several suggested that negotiated settlements among affected parties should continue to be a means for resolving disputes. All commenters wanted minimum disruption of existing curtailment plans. Some commenters believe that the Sections 401 and 402 priorities mandated by the NGPA can be incorporated into existing curtailment plans with a minimum of revision. One pipeline suggested that ERA abandon this proceeding entirely and adopt existing plans, because changes are costly, of questionable legality, unnecessary and time-consuming.

I. *Other Issues*

Several commenters used the NOI comment process to raise specific concerns which did not fit into the 22 issues listed in the NOI. These additional issues are as follows:

1. A group of small customers urged that a uniform small customer exemption be incorporated into all curtailment plans. Furthermore, they alleged that existing pipeline exemptions are inadequate and that it is necessary to treat a pipeline's small distribution company customers as special cases during curtailment.

2. One comment concerned the allocation of gas between interstate pipeline customers and direct market customers. The commenter contends that United Gas Pipeline Company is curtailing gas in its own service area while making available 60 percent of its gas to other interstate pipelines which are curtailing very little or not at all and which have access to other supplies. The State of Louisiana regards this practice as inequitable and recommends that pipelines be required by their curtailment plans not to curtail higher priority industrial users in their own service areas in order to make deliveries to other pipelines.

3. Another commenter addressed the effects of natural gas curtailment policy on fuel oil. Currently natural gas curtailments create rapid fluctuations in the demand for fuel oil as a substitute fuel, to which oil suppliers have had difficulty responding. The commenter suggested that DOE consider widening the higher priority industrial categories as much as possible and observed that conservative load growth policies would help to stabilize the fuel oil markets.

4. Comments from a DOE regional office recommended that ERA include in its review the effects of curtailment on natural gas processors who extract NGL from gas. The commenter suggested a possible conflict between ERA pricing regulations for NGL and the curtailment treatment of gas processors.

Section V.—Summary of Regulatory Analysis

Copies of the entire Regulatory Analysis are available in Room B–110, U.S. Department of Energy, Economic Regulatory Administration, 2000 M Street, N.W., Washington, D.C. A brief summary is provided here.

A. Purpose

The regulatory analysis prepared as part of our review and establishment of natural gas curtailment priorities addresses fundamental alternatives for curtailment policy and their potential social, economic and environmental cost impacts. Policies governing existing Federal curtailment priorities, certain requirements of the NGPA, and curtailment policies implemented under State authorities, are among major considerations included in the analysis.

B. Basic Approaches for Managing Curtailment

There are three basic approaches, as outlined below, which can be used to manage curtailments:

1. Rationing—allocation, distribution or management of available gas supplies by administrative rules applicable during shortages. Presently effective curtailment plans are examples.

2. Pricing—allocation of available gas by price. Prices offered and paid by end use customers are relied upon as the means for bringing demand into line with supply during periods of shortage. The pricing approach designed and considered by the Public Service Commission of Wisconsin for managing gas shortages is an example. It consists of a once-a-year action for interruptible users.

3. Beyond Curtailment—allocation policy that attains basic goals for establishing curtailment priorities and other related goals, *i.e.*, goals beyond curtailment policy. "Beyond curtailment" utilizes either a rationing or a pricing approach for managing curtailments and achieving other policy objectives. The inclusion of additional policy objectives distinguishes this approach. Combining a pricing scheme which manages short-term shortages with a rate design that manages long-term curtailments is one example.

Options within each of the three basic approaches to managing curtailments can vary extensively, but the basic distinctions between the general approaches remain constant.

C. Options for Managing Curtailment

In this study we subdivided the basic approaches to managing curtailments and determined important specific options within the subdivisions. We then evaluated the economic consequences of these options. For most of the options we conducted the evaluations through simulation with models of supplier operations, user fuel

substitution and user shortage impacts. We also conducted some evaluations without simulations.

1. *Rationing.*—Within rationing, we subdivided options into priority classifications that remain fixed (fixed rationing) and those that vary in response to change (responsive rationing).

a. *Fixed Rationing.*—Fixed rationing evolves from a belief that even in situations where changes may have potential for reducing the cost of curtailment, the present rationing should be continued to maintain user familiarity and continuity for planning purposes. The specific options evaluated are as follows:

(i) *Do Nothing (No change).* Continue presently effective curtailment plans, without the changes required by the NGPA. Curtailment plans presently in effect vary widely among gas companies. These include interstate pipeline plans governed by Federal priorities and local distribution company plans generally governed by State priorities. Existing plans generally establish priority groupings comprised of similar end uses. The most highly valued end use priorities are the last to be curtailed when shortages of natural gas occur. This option was used as the base case from which all other rationing options were developed and against which all other options were compared.

(ii) *Improved 467–B.* Allow freer gas flow between interstate systems and improve the use of storage. This option permits all gas not required for any firm end use customer to be sold off system and allocates available storage to users whenever the cost of storage equals or is less than the cost of curtailment to those users being curtailed. This option was modeled.

(iii) *Percentage limit.*—Establish subdivisions within intermediate priority categories. Examples of intermediate use are large commercial and medium and small industrial gas users. This option limits initial curtailment of an intermediate priority category to 80 percent, then curtails the next higher intermediate priority category before increasing the curtailment within the lower intermediate priority category from 80 to 100 percent. This is a way to reduce the economic costs of curtailment to users within intermediate priority categories. This option is based on simulations that indicate the largest costs of curtailment to users within intermediate categories occur when over 80 percent of deliveries are curtailed.

(iv) *A binding nationwide rule.* Require a uniform nationwide priority classification for all interstate pipelines. This would greatly disrupt present curtailment plans and self-help measures and was dismissed without precisely estimating costs.

b. *Responsive Rationing.* Responsive rationing assumes that priority categories should be changed when there are new insights on the relative importance of needs for natural gas. We considered the following specific options:

(i) *Agricultural priority.* Protects essential agricultural needs, as mandated by the NGPA. Study simulations were modeled using the base case with additions to the agricultural priority category as required by the NGPA.

(ii) *Process and feedstock priority.* Protects requirements for essential industrial process and feedstock uses, as mandated by the NGPA. Our study simulations sought to establish categories of process use that would minimize shortage costs.

(iii) *Rolling base.* Updates periodically the requirement indices specified in an interstate pipeline's curtailment plan. Our simulations modeled this option using an annual update in the index of customer requirements based on a two-year moving average of gas consumption.

2. *Pricing.*—Within pricing, we subdivided into an option where the use of pricing is unrestricted and options where pricing is restricted.

a. *Unrestricted Pricing.* This option involves bidding between pipeline systems and bidding among all users within a pipeline system. We do not examine this option in detail because it is very cumbersome and less practical than a pricing scheme combined with a rate design approach.

b. *Restricted Pricing.* Using our model, we simulated the following restricted pricing options.

(i) *Auction within incremental pricing* or bidding among end users in the first stage of NGPA pricing. Only users under Stage 1 of incremental pricing participate.

(ii) *Auction* or once-a-year auction for all end users who are given a base allocation. Re-establish base allocations for users annually.

3. *Beyond Curtailment.*—The curtailment option offering the best vehicle for accomplishing goals in addition to curtailment aims combines pricing with rate design. This option was simulated in this study. Priority categories simulated were the same as rate categories and end users could choose their curtailment category via prices paid.

D. Economic Consequences of Study Alternatives

The selection of a curtailment option has no significant effect on real gross national product. Curtailment impacts on gas users are offsetting because any permanently lost production of goods and services by a curtailed end-user generally is made up by other establishments and temporarily lost production is made up later by the same industrial end-user. However, any reduction in the economic cost of curtailment under improved curtailment options helps to reduce the inflationary effects of cost increases stemming from delayed production and from shifting production among producers which would otherwise be incurred because of curtailment.

The study modeled the effects of implementing specific options using prototype pipelines and distributors, and expanded these results to national estimates. The estimated economic costs of curtailment represent averages calculated using a fixed supply and various simulated demands. The demand simulations covered 100 probable weather patterns, varying from much warmer than normal to much colder than normal. We then combined the average winter costs thus obtained with estimates for the rest of the year, to calculate average annual economic costs. The model computed the following types of costs:

1. *Shortage impact costs:* The short-run economic cost impact of shortages on users, including the costs of alternate fuel use, plant shutdowns, and overtime to make up production.

2. *Shortage coping costs:* The long-run economic cost of users, including investments in facilities for alternate fuel capability.

3. *Supplier operating costs:* These costs include the economic cost for addition of storage or peaking facilities.

4. *Non-user pollution costs:* These are the economic costs due to damage from extra pollution caused by the use of substitute fuels.

Table 1 summarizes approximations of cost savings determined by the model as cost differences among specific options, using the "Do Nothing" (no change) option as a standard.

E. Study Findings

Our analysis concluded the following:

Table 1.—*Estimated Average Annual Cost Savings From Pipeline to the Burner Tip by 1981 in Billion Dollars* [1]

[Using the present system as a standard]

	Estimated cost savings [2]	Percent saving in costs [2]	Comments
I. Rationing approach:			
"Do-nothing" (no change) variant	$0.0	0.0	The present system.
"Improved 467–B" variant	1.0	4.2	Facilitate free flow of gas between systems.
"Percentage limit" variant	1.1	4.7	Avoid impacts from 100 percent curtailment.
"Ag. priority" variant	−.9	−3.8	Required by law.
"Process and feedstock priority" variant	0.0	0.0	Required by law.
"Rolling-base" period	−0.2	−.8	Update of index from which to measure curtailment.
II. Pricing approach:			
"Auction" variant	1.8	7.6	
"Auction within incremental pricing" variant	.2	.8	Only users under stage 1 of incremental pricing participate
III. Beyond curtailment approach: "Rate structure" variant.	3.6	15.3	Should be coordinated with DOE rate design studies required by Section 601 of PURPA.

[1] In constant 1978 dollars, but incorporating the higher rate of increase in natural gas than in prices generally.
[2] Estimated savings is the difference in total approximate costs between the particular option and the $23.6 billion approximate cost under the present system of curtailment.

1. There are three distinct approaches to managing curtailments—rationing, pricing, and policies which combine management of curtailment with other policies. The most economically efficient system is the one which most precisely recognizes shortage costs to the end-use customer. The present rationing system lowers economic shortage costs as compared with a pro-rata curtailment approach. A system using pricing has the greatest potential for lowering economic shortage costs by precisely recognizing the end users' shortage costs.

2. The present curtailment plans of interstate pipelines, coupled with the emergency authority provided under Title III of the NGPA, are adequate for managing both long term and seasonal gas shortages.

3. The present system can be improved by allowing for easier movement (sales) between systems to avoid more severe curtailment on some systems. Having different shortage levels among systems leads to higher overall economic costs of curtailment.

4. Under the present system, fuel substitution costs vary greatly, even among users within the same end use priority. End use curtailment plans are an attempt to assign priorities in keeping with variations in user costs of curtailment, but determinations are not precise. Approaches using pricing have the greatest potential for most precisely ranking users in keeping with their substitution costs.

5. Imprecision in present curtailment plans might be reduced in two ways. First, individual suppliers and users could more precisely classify uses within the base period requirements for each priority category. Second, a Federal rule could give higher priority to more critical volumes within categories, *e.g.*, by establishing subdivisions within intermediate priorities, such as the percentage limit approach discussed previously.

6. Under the present Federal curtailment priority aproach, there are likely to be increases in shortage costs if systems using a fixed base period switch to a rolling base period.

7. More efficient supply and consumption would occur if rate structure were changed to allow lower rates for lower priority users who are subject to curtailment and higher rates for users less subject to curtailment (*e.g.*, users on higher priorities and those who are supplied from gas in storage). There are many situations where users who pay the same rate for gas receive different levels of curtailment on the same system.

8. The test of any definition of "essential industrial process and feedstock use" should be whether the assignment of a higher priority will decrease or increase the economic costs from present curtailment. Analysis suggests that a broad definition, such as one based on SIC-defined products, will increase these costs by including nonessential uses. A narrow definition, coupled with an alternate fuel conversion test, could minimize shortage costs by restricting higher priority to include only essential uses.

9. Mandatory systemwide changes in curtailment priorities which are not coordinated with the theory of shortage costs will increase total costs above costs realized under the present system during shortages.

10. Large volume users generally have lower costs of conversion per unit of gas.

11. Changes in curtailment plans will be more effective if they are sufficiently flexible to allow adjustment to special conditions on specific systems.

12. Curtailment policy should focus on reducing shortage costs over both the short and long runs.

13. The present curtailment priority classifications have the advantage of being familiar to suppliers and users and, thus, minimize uncertainty that otherwise could lead to excess costs in preparing for curtailments. While certain modifications to existing curtailment priorities could lower economic shortage costs, the benefits to be achieved may be outweighed by other costs resulting from implementation of such changes. In addition, increased uncertainty on the part of suppliers and users over the availability of supplies may lead to additional costs in preparing to cope with potential curtailments, such as investment in storage or alternate fuel facilities or the development of supplemental natural gas supplies. Additional costs can also occur if changes in supply availability undermine the investment value of present self-help measures.

Section VI.—Draft Environmental Impact Statement

Copies of the Draft Environmental Impact Statement are available for review in Room B–110, 2000 M Street, N.W., Washington, D.C., 20461.

A programmatic Draft Environmental Impact Statement (DEIS) was prepared to evaluate the environmental impacts of alternatives to manage curtailments at the interstate pipeline level. The DEIS study constructed 54 case studies to cover the Nation's largest gas consuming urban Air Quality Control Regions (AQCR's). This AQCR sample was chosen because it includes most major U.S. cities and represents 61 percent of total industrial gas use. The DEIS also performed an auxiliary analysis of 88 smaller gas consuming cities and non-metropolitan areas. All the case studies were examined in detail to evaluate the broad range of air quality impacts that might result from alternate curtailment policies.

The results of the case studies indicated that there would be little change in environmental impacts from the *status quo* with any of the curtailment alternatives. The impacts of all alternate curtailment policies on annual pollutant concentrations were nearly identical to the impact of the existing curtailment policy. The net

effect, therefore, of any change from the *status quo* was essentially zero. This is explained in major industrial areas by the fact that large quantities of emissions from other sources in these major industrial areas completely overshadow the emissions from the burning of alternate fuels during periods of winter season natural gas curtailment.

No curtailment alternative was found which could reduce the overall level of environmental impacts. Exceptional cases of larger incremental increases in pollutants can be dealt with on a case-by-case basis. The FERC currently has authority to grant exemptions from a given curtailment policy if it finds that undue hardship otherwise would result. The DEIS therefore recommends that the FERC continue environmental reviews of individual pipelines for the purpose of evaluating requests for exemptions from applicable curtailment rules.

Section VII.—Comment and Hearing Procedures

A. *Comments.*—You are invited to participate in this proceeding by submitting written data, views, or arguments with respect to the proposal set forth in this notice of proposed rulemaking to Pulic Hearing Management, Economic Regulatory Administration, Room 2313, Docket No. ERA–R–79–10–A, 2000 M Street, N.W., Washington, D.C. 20461. You may hand-deliver your comments to this room between 8:00 a.m. and 4:30 p.m., Monday through Friday, or you may mail your comments to the above address. You should submit 15 copies and should include on the first page of each comment and any envelope, the docket number and the designation "Comments on Proposed Rule: Curtailment Priorities for Interstate Pipelines." Only five copies of any comments on the "Draft Environmental Impact Statement" are required. They should be packaged and designated separately with the docket number (ERA–R–79–10–A) and the designation "Comments on Draft Environmental Impact Statement." We will consider all comments all comments received by 4:30 p.m. on August 29, 1980 and all other relevant information before taking further action on this matter.

Any information you consider to be confidential must be so identified and submitted in one copy only. We reserve the right to determine the confidential status of the information and to treat it according to our determination.

B. *Public Hearing.*—1. *Procedures for requests to make oral presentations.* The public hearings will begin at the time and in the places listed in the "Dates" and "Addresses" section of this NOPR and each hearing will be continued if necessary in the same location on the next day, beginning at 9:30 a.m. If you have any interest in this Notice, or represent a person, group or class of persons that has an interest, you may make a written request for an opportunity to make an oral presentation at the public hearing. These requests to speak must be sent to the address shown in the "Addresses" section for the particular hearing and must be received by the date shown for the hearing location at which you desire to speak.

In your request, you should briefly describe your interest; if appropriate, state why you are a proper representative of a group or class of persons having such interest; and give a concise summary of the proposed oral presentation and a phone number where we may contact you through the day before the hearing. If you are selected to participate in the hearing, you will be notified on or before 4:30 p.m., August 11, 1980 for the Washington, D.C. hearing, on or before 4:30 p.m., July 23, 1980 for the Atlanta hearing, on or before 4:30 p.m., July 28, 1980 for the Houston hearing, on or before 4:30 p.m., July 21, 1980 for the Chicago hearing, and on or before 4:30 p.m., July 30, 1980 for the San Francisco hearing. You must submit 100 copies of your hearing testimony by 4:30 p.m. on August 11, 1980 for the Washington, D.C. hearing. For all regional hearings, the person making an oral presentation at a hearing will be required to deliver 100 copies of his statement to the hearing room on the morning of the day scheduled for his appearance.

2. *Conduct of the hearings.* We reserve the right to select the persons to be heard at the hearing, to schedule their respective presentations, and to establish the procedures governing the conduct of the hearing. We may limit the length of each presentation, based on the number of persons to be heard.

We will designate an ERA official to preside at the hearing. This will not be a judicial or evidentiary-type hearing. Questions may be asked only by those conducting the hearing. At the conclusion of all initial oral statements, each person who has made an oral statement will be given the opportunity, if the person so desires, to make a rebuttal statement. Rebuttal statements will also be subject to time limitations.

You may submit questions to be asked of any person making a statement at the hearings to Public Hearing Management, Economic Regulatory Administration, Room 2313, Docket No. ERA–R–79–10–A, 2000 M Street NW., Washington, D.C. 20461, before 4:30 p.m., on the day prior to the hearing. For hearings in locations other than Washington, D.C. you may submit your questions to the hearing office at that particular location using the address shown in the "Addresses" section of this NOPR. The first page and any envelope should include the docket number and the designation "Questions on Review and Establishment of Natural Gas Curtailment Priorities." If you wish to ask a question at the hearing, you may submit it in writing to the presiding officer. The presiding officer will determine whether the question is relevant and whether time limitations permit it to be presented for answer.

The presiding officer will announce any further procedural rules needed for the proper conduct of the hearing. We will have a transcript made of the hearing and we will retain the entire record of the hearing, including the transcript, and make it available for inspection at the Freedom of Information Office, Room 5B–180, 1000 Independence Avenue SW., Washington, D.C., between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. You may purchase a copy of the transcript from the reporter.

Pursuant to the requirements of Section 404 of the DOE Act, upon issuance of this proposed rule, a copy of this Notice will be referred to the Federal Energy Regulatory Commission for it to determine whether this proposed rule may significantly affect any function within the Commission's jurisdiction pursuant to Section 402 (a)(1), (b), and (c)(1) of the DOE Act. The Commission will have until August 29, 1980, the date the public comment period closes, to make this determination.

(Natural Gas Act, as amended, 15 U.S.C. 717 *et seq.*; Natural Gas Policy Act of 1978, Pub. L. 95–621; Department of Energy Organization Act, Pub. L. 95–91; E.O. 11790 (39 FR 23185); E.O. 12009 (42 FR 46267))

In consideration of the foregoing, Title 10, Part 580, Code of Federal Regulations, is proposed to be revised to read as follows.

Issued in Washington, D.C. June 24, 1980.

Hazel R. Ball,

Administrator, Economic Regulatory Administration.

Subchapter G of Chapter II of Title 10, Code of Federal Regulations, is revised to read as follows:

PART 580—NATURAL GAS CURTAILMENT PRIORITIES FOR INTERSTATE PIPELINES

Sec.

580.01 Purpose.
580.02 Definitions.

Sec.
580.03 Curtailment priorities.
580.10 Administrative procedures [Reserved].

Authority: Natural Gas Act, as amended, 15 U.S.C. 717 *et seq.*; Sections 401, 402, 403, Pub. L. 95–621, 92 Stat. 3394–3396 (1978), Sections 301(b), 402(a), 501, Pub. L. 95–91, 91 Stat. 578, 583–584, 587–589 (1977) 42 U.S.C. Sections 7151(b), 7172(a), 7191); E.O. 11790, 39 FR 23185; E.O. 12009, 42 FR 46267.

§ 580.01 Purpose.

The purpose of this Part 580 is to establish priorities for curtailment of natural gas deliveries by interstate natural gas pipelines and to implement the authorities vested in the Secretary of Energy by Sections 401, 402 and 403 of the Natural Gas Policy Act of 1978, Pub. L. 95–621, 92 Stat. 3394–3396 (1978) and Sections 301(b), 402(a)(1)(E) and 501 of the Department of Energy Organization Act, Pub. L. 95–91, 91 Stat. 578, 583–584, 587–589 (1977).

§ 580.02 Definitions.

(a) For the purpose of this Part 580, all the terms used shall be defined as in Section 2 of the Natural Gas Policy Act of 1978, unless further defined in subsection (b) of this section.

(b) The following definitions are applicable to Part 580:

(1) *Base period*—means the period of time used in an interstate pipeline's curtailment plan as the basis for determining all or a portion of the requirements of its customers for the purpose of allocating natural gas to those customers during periods of curtailment.

(2) *Commercial establishment*—means any establishment (including local, State and Federal government agencies) engaged primarily in the sale of goods or services which uses natural gas for purposes other than manufacturing or the generation of electric power for sale.

(3) *Curtailment*—means any situation where an interstate pipeline cannot make deliveries of all its customers' requirements, as that term is defined herein, including situations due to a lack of pipeline capacity.

(4) *Curtailment plan*—means a plan of an interstate pipeline, describing the pipeline's criteria for allocating natural gas to its customers during periods of curtailment.

(5) *Essential agricultural use*—means, in no specific order, any use of natural gas.

(i) for agricultural production, natural fiber production, natural fiber processing, food processing, food quality maintenance, irrigation pumping, crop drying, or

(ii) as a process fuel or feedstock in the production of fertilizer, agricultural chemicals, animal feed, or food,

which the Secretary of Agriculture determines is necessary for full food and fiber production, unless the Commission has determined that use of a fuel other than natural gas is economically practicable and reasonably available as an alternative for such use.

(6) *Essential agricultural user*—means any person who uses natural gas for an essential agricultural use as defined in subsection (b)(5) of this section.

(7) *Essential industrial feedstock use*—means natural gas used for its chemical properties as a raw material in creating an end product, in situations where the Commission has determined that use of a substance other than natural gas is neither economically practicable nor reasonably available as an alternative for such use.

(8) *Essential industrial process use*—means, in no specific order, natural gas used directly in an industrial use where

(i) a direct flame or precise flame characteristics are required; or precise temperature controls are required, or the gas is used in the necessary processes of ignition, startup, testing or flame stabilization, and

(ii) where conversion to a fuel other than natural gas either would cause a significant deterioration in the quality of the product, or would require costly modification to or costly replacement of equipment, and

(iii) where the Commission has determined that use of a fuel other than Natural gas is neither economically practicable nor reasonably available as an alternative for such use.

(9) *High-priority use*—means any use of natural gas by a high-priority user as defined in subsection (b)(10) of this section.

(10) *High-priority user*—means, in no specific order, any person who uses natural gas

(i) in a residence;

(ii) in a commercial establishment in amounts of less than 50 Mcf on a peak day;

(iii) in any school or hospital; or

(iv) for minimum plant protection when operations are shut down, for police protection, for fire protection, in a sanitation facility, in a correctional facility, or for emergency situations pursuant to 18 CFR 2.78(a)(4).

(11) *Hospital*—means a facility whose primary function is delivering medical care to patients who remain at the facility, including nursing and convalescent homes, as well as out-patient clinics and doctors' offices which are physically connected with a hospital or its heating plant.

(12) *Industrial use*—means any use of natural gas in a process which creates or changes raw or unfinished materials into another form or product, including the generation of electric power.

(13) *Requirements*—means the volumes of natural gas that a customer of an interstate pipeline is entitled to under that pipeline's curtailment plan, as the term curtailment plan is defined herein.

(14) *Residence*—means a dwelling using natural gas predominantly for residential purposes such as space heating, air-conditioning, hot water heating, cooking, clothes drying, and other residential uses, and includes apartment buildings and other multi-unit residential buildings.

(15) *School*—means a facility, the primary function of which is to deliver instruction to regularly enrolled students in attendance at such facility. Facilities used for both educational and non-educational activities are not included under this definition unless the latter are merely incidental to the delivery of instruction.

§ 580.03 Curtailment Priorities.

(a) Except as provided in subsections (g) and (h), the curtailment plan of each interstate pipeline shall contain the following priorities to govern deliveries of natural gas to the pipeline's customers during periods of curtailment on the pipeline:

(1) *Priority One:* Those requirements for high-priority uses of natural gas as defined in § 580.02(b)(9) of this Part, determined using a fixed base period.

(2) *Priority Two:* Those requirements for essential agricultural uses of natural gas as defined in § 580.02(b)(5) of this Part.

(3) *Priority Three:* Those requirements for essential industrial feedstock uses and essential industrial process uses of natural gas as defined in Sections 580.02(b)(7) and 580.02(b)(8) of this Part, respectively, determined using a fixed base period.

(4) *Priority Four:* Those requirements, in no specific order, for all other uses not specified in Priorities One, Two or Three, including

(i) use of natural gas in large (50 Mcf or more on a peak day) commercial establishments, and

(ii) industrial use,

less than 300 Mcf per day determined using a fixed base period.

(5) *Priority Five:* Those requirements for any uses of natural gas not included in Priorities One, Two, Three or Four, determined using a fixed base period. Priority Five shall be subdivided based on the following volumetric ranges, with the requirements for subpriority (i) being

the last curtailed, unless it is demonstrated to the FERC that other volumetric ranges are just and reasonable:

(i) Requirements of 300 Mcf per day or more, but less than 1,500 Mcf per day;

(ii) Requirements of 1,500 Mcf per day or more, but less than 3,000 Mcf per day;

(iii) Requirements of 3,000 Mcf per day or more, but less than 10,000 Mcf per day;

(iv) Requirements of 10,000 Mcf per day or more.

(b) The curtailment plan of each interstate pipeline shall require that all requirements of natural gas for a lower priority shall be curtailed before requirements for a higher priority are curtailed, unless with respect to Priorities Four and Five it is demonstrated to the Commission that is is just and reasonable to allow a certain portion of the requirements of a lower priority or subpriority to continue to be served while some or all the requirements of the next higher priority or subpriority are curtailed. None of the requirements for Priority Three may be curtailed, however, if any requirements for Priorities Four or Five are still being served.

(c) There shall be no differentiation in curtailment plans among natural gas users or uses based on whether service is firm or interruptible, unless with respect to Priorities Four and Five it is demonstrated to the Commission that it is just and reasonable to distinguish among users or uses based on whether service is firm or interruptible.

(d) Nothing in this rule shall prohibit the injection of natural gas into storage by interstate pipelines or deliveries to the customers of interstate pipelines for their injection into storage, unless it is demonstrated to the Commission that these injections or deliveries are not reasonably necessary to meet the requirements of high priority or essential agricultural, industrial process and industrial feedstock uses in their respective order of priority.

(e) Nothing in the rule shall prohibit an interstate pipeline from continuing to serve any or all of the requirements of a customer which is a small local distribution company when the requirements of other customers are being curtailed, if it is demonstrated to the Commission that it is just and reasonable.

(f) There shall be no differentiation in curtailment plans among natural gas users or uses based on any cogeneration activities by gas users.

(g) Nothing in this rule precludes the rolling or updating of an interstate pipeline's base period in regard to the requirements for any or all of its priorities if it is demonstrated to the Commission that it is just and reasonable.

(h) Nothing in this rule requires that a curtailment plan in effect on the date of the adoption of this rule be changed, except to the extent that changes are necessary to protect Priorities One, Two, and Three from curtailment.

(i) Any essential agricultural user who also qualifies as a high-priority user shall be a high-priority user for purposes of applying the curtailment priorities in this section.

§ 580.10 Administrative Procedures [Reserved]

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